



Economic Impact Study of the Great Lakes St. Lawrence Seaway System

Transportation Cost Savings

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In addition to the jobs, personal income, business revenue and taxes created by cargo activity on the Great Lakes St. Lawrence Seaway System, the use of the Great Lakes St. Lawrence Seaway System provides transportation costs savings for shippers/consignees using the 16 U.S. Great Lakes ports. It is estimated that during the shipping season for 2000, this transportation system provided \$1.2 billion of cost savings to the steel mills, utilities, and other key industries located in proximity to the 16 U.S. Great Lakes ports. Of the 192 million tons moving via the 16 U.S. ports, ore, coal, grain, cement, stone and aggregates, salt and iron and steel products account for 88 percent of the tonnage. The ore, coal, cement, and stone and aggregates are consumed by users located in proximity to the individual U.S. Great Lakes ports, and these users have most likely located near the Lakes ports in order to minimize transportation costs of the raw materials. Grain terminals have located on the Great Lakes in order to provide a cost-effective outlet for grain grown in the Great Lakes hinterland. Furthermore, without this transportation system, it is unlikely that these industries, providing more than 37,000 direct jobs, would have initially located in the Great Lakes area, nor could they maintain the current operations at competitive costs.

Interviews were conducted with more than 200 terminal operators, shippers and consignees as part of the economic impact study. As part of these interviews, data was gathered as to the transportation cost savings that the Great Lakes routing provides over an alternative routing. This report summarizes the average cost savings provided by the Great Lakes St. Lawrence Seaway System realized by each of the above noted bulk cargoes.

1. IRON ORE

A total of 87.8 million tons of ore were shipped and received via the 16 U.S. Great Lakes ports. The majority of the ore is consumed by the steel mills located in such U.S. Great Lakes cities as Detroit, Lorain, Gary, Burns Harbor, and Chicago. The steel mills located in these cities and consuming a majority of the ore employ 17,300 jobs. Based on the interviews with these mills, the use of the Great Lakes provide a \$12 per ton cost savings over the use of coastal ports to receive the iron ore. Of the 87.8 million tons of ore moving via the 16 U.S. ports, 32.7 million tons is both shipped and received via the lakes ports. Controlling for double counting of shipments and receipts, 55.1 million tons of ore was consumed by the Great Lakes steel mills. Therefore, the use of the Great Lakes St. Lawrence Seaway System to receive ore provides \$661.2 million of transportation cost savings to the steel mills located in proximity to the above noted U.S. Great Lakes port cities.

2. COAL

During the 2000 shipping season, about 42.2 million tons of coal moved via the Great Lakes St. Lawrence Seaway System. The majority of the coal is used by utilities and steel mills located on the Great Lakes and about 6,400 direct jobs are associated with the coal moving on the Great Lakes St. Lawrence Seaway System. Nearly 17 million tons of coal originates in the Powder River Basin area, while 13 million tons originate in mines in Kentucky and West Virginia. Of the 42.2 million tons of coal moving via the 16 U.S. Great Lakes ports, about 30 million tons are actual shipments, while the balance are receipts of these shipments at consuming ports. The interviews with these utilities, steel mills and terminal operators indicated that if the coal was not moved by laker, coal transportation costs would increase by \$8.50 per ton. Assuming 12 million tons of the 42 million tons of coal are consumed by utilities and mills located in the 16 U.S. Great Lakes port cities, the use of the Great Lakes St. Lawrence Seaway System provides \$102 million of transportation cost savings to the utilities and steel mills served by the 16 U.S. ports.

3. STONE AND AGGREGATES

In 2000, 23.2 million tons of stone and aggregates moved via the 16 U.S. Great Lakes ports. The stone and aggregates moving on the Great Lakes St. Lawrence Seaway System created 4,645 direct jobs. Interviews with the users and terminal operators using and handling the stone and aggregates indicated that if the Great Lakes could not be used to move the stone and aggregates, truck would be used, resulting in an increased transportation cost of \$10.50 per ton. As a result, the Great Lakes St. Lawrence Seaway System provides a \$243.5 million cost saving to the users of the stone and aggregates.

4. GRAIN

During the 2000 shipping season, 6.8 million tons of grain moved via the Great Lakes St. Lawrence Seaway System. The 6.8 million tons of grain created 1,467 direct jobs. Interviews with grain companies indicated that if the Great Lakes St. Lawrence Seaway System ceased to exist, rates would increase by \$.15-\$.30 /bu, since rail would no longer have a competitive alternative transportation system. This could limit the export marketability of the grain now moving via the Great Lakes St. Lawrence Seaway System.

5. CEMENT

In 2000, 5.4 million tons of cement moved on the Great Lakes St. Lawrence Seaway System. The majority of this cement originated in Michigan and Ontario and created 1,136 direct jobs with users and providers of transportation services at the 16 U.S. Great Lakes ports. The terminals receiving the cement indicated that truck would be used if laker transportation was not available, and as a result, transportation costs would increase by \$21 per ton. Based on the reported cost increase if truck were used, the Great

Lakes St. Lawrence Seaway System provided a cost savings to cement users of \$113.4 million.

6. SALT

In 2000, nearly 4 million tons of salt moved on the Great Lakes St. Lawrence Seaway System, creating 782 direct jobs. The salt is used for road salt, and is typically distributed within a 50-mile radius of the receiving port. Interviews indicated that if the Great Lakes were not available for the movement of salt, costs would increase by \$20 per ton. Therefore, the lakes provide an \$80 million cost saving for salt users.

7. IRON AND STEEL PRODUCTS

Nearly 5.1 million tons of iron and steel products moved on the Great Lakes St. Lawrence Seaway System in 2000, creating 5,422 direct jobs. Interviews with key steel importers indicated that a majority of the steel imported into the 16 U.S. Great Lakes ports is special order steel, and is less sensitive to transportation costs compared to time of delivery. In fact, in many cases, the use of Great Lakes ports is not the least cost routing compared to an East Coast port or the use of the Mississippi River System. However, the time of delivery is critical, and for the most part, the use of the Great Lakes St. Lawrence Seaway System provides the most time effective routing. Interviews with key steel importers suggested that delays of up to 6 weeks are not uncommon when rail shipping steel products from East Coast ports.

8. SUMMARY

The Great Lakes St. Lawrence Seaway System provides significant cost savings to the key industrial users on the Great Lakes, as well as provides a cost competitive outlet for grain produced in the Midwestern United States. It is estimated that during the 2000 shipping season, this transportation system provided \$1.2 billion of cost savings to the steel mills, utilities, and other key industries located in proximity to the 16 U.S. Great Lakes ports. Without this transportation system, it is unlikely that these industries, providing more than 37,000 direct jobs, would have initially located in the Great Lakes area, nor could they maintain the current operations at competitive costs.